

AMENDMENTS TO THE SPECIFICATION:

Please amend the indicated paragraphs of the specification in accordance with the amendments indicated below.

Page 2: 1st full paragraph, amend as indicated below:

[0004] A plurality of processing methods are available for tribometric processing of starting materials such as e.g. grinding by stressing between two surfaces, or using collisions between freely mobile particles and solid surfaces or collisions among the particles themselves. So-called disintegrators are used for inserting high potential energy into the smallest of particles on a scale of a few $[[1]] \mu\text{m}$ and for thus causing lattice distortions. The construction principle is characterized by two pin rings or ring gears. In one variant, as described in DE-AS 12 36 915, the particles are comminuted in collisions with pins or teeth. At least three collisions with pins at intervals of no more than 50 ms at a relative speed of at least 15 m/s are required for adequate activation. In this arrangement it is disadvantageous that the wear on the pins is very high, especially when using very hard starting materials.

Page 3: Paragraph bridging pages 3 and 4, amend as indicated below:

[0008] This object of the invention is attained using a disintegrator of the generic type indicated in the foregoing in which the starting materials in the form of a granulate are subjected to impact pressure waves from a broad frequency spectrum and a pulse duration of less than 10 μ s. Further comminution of the particles, destroying the crystal lattice structure, occurs due to the effect of the impact pressure waves striking the particles in quick succession at supersonic speed. As a result of this comminution, a conglomerate of mixed crystals occurs that [[have]] has an increased capacity for crystal formation when water is added later. The impact pressure waves are generated by shaped bodies with aerodynamically shaped profiles and surfaces that are accelerated to the so-called transonic range. With these, impact pressure fronts are generated that pulverize the granulate introduced into the disintegrator to the desired particle size. The shaped bodies move on disks just below supersonic speed. Because of the effect of high mechanical energy, in addition to being comminuted, the particles are activated and thus undergo a change in chemical properties.

Page 9: 1st full paragraph, amend as indicated below:

[0019] Figure 2 illustrates the effect of the impact pressure fronts 4 on a particle [[30]] 7. The particle [[30]] 7 passes through an impact pressure front 4 twice, alternating in a different direction.

Page 9: Paragraph bridging pages 9 and 10, amend as indicated below:

[0021] Figure 4 illustrates a section of an inventive disintegrator. The shaped bodies 1 of the first group 1a are affixed to the disk [[A]] 15. Two groups per direction of rotation are used in the exemplary embodiment. The disk [[A]] 15 is itself affixed to the hub [[A]] 28 on the axle 25, which is caused to rotate at the necessary minimum speed by a drive motor 32. The axle 25 is borne in the housing 20 via the bearing [[A]] 26. A shaft seal [[A]] 27 prevents particles 30 and impurities from exiting the bearing [[A]] 26. The second group of shaped bodies 1b is affixed to the disk [[B]] 16. This disk [[B]] 16 is securely joined to the disk [[B]] 17 and the axle [[B]] 21, whereby the axle [[B]] 21 itself is borne in the housing 20 via the bearing [[B]] 24. The second group of shaped bodies 1b is driven by the motor 33 against the direction of rotation of the motor 32.

Page 10: Paragraph bridging pages 10 and 11, amend as indicated below:

[0023] In the design of the inventive disintegrator it should be noted that the disks 15 and 16 rotating at great speed and the shaped bodies 1 affixed thereto pull air along with them, and this air is driven outward by centrifugal forces. While in the disintegration space 29 a continuous change occurs in the rotational speed and thus the speed of the particles 30 is decelerated again and again, the centrifugal force for the two exterior surfaces 38 and 39 of the two disks 15 and 16 remains unchanged. In particular for the disk [[B]] 16, through which passes the filling hopper 31, the centrifugally accelerated air can lead to undesired suction of the granulate 7 out of the filling hopper 31 at the external surface 39 of the disk [[B]] 16 and granulate 7 can be conveyed directly to the outlet 34, circumventing the effects of the shaped bodies 1. This effect can be corrected when the exterior surface 39 of the disk [[B]] 16 is relatively well sealed against the housing 20 by a sealing ring 35. Another solution for this problem is to arrange scoops 19 on the exterior surface 39 of the disk [[B]] 16; these then counteract the centrifugal force using an opposing air flow.

Page 13: Legend 32, amend as indicated below:

32 Motor [[A]] for driving disk 15

F-8632

Page 13: Legend 33, amend as indicated below:

33 Motor ~~[[B]]~~ for driving disk 16

Page 13: Legend 38, amend as indicated below:

38 Exterior surface of disk 15

Page 13: Legend 39, amend as indicated below:

39 Exterior surface of disk 16